

## *Social Studies*

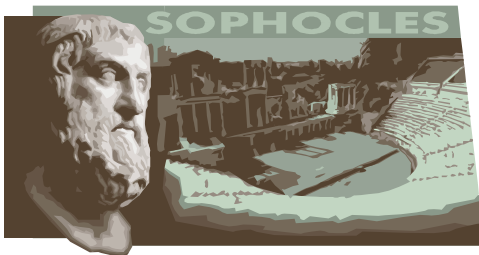
Curriculum Based Teacher's Guide: **Middle and High School Levels**  
The Parthenon

The Nashville Parthenon offers students a rare opportunity to time-travel back to 5<sup>th</sup> Century BC.

# Why would we want to do that?

The ancient Greeks made a **HUGE** impact on the world, an impact that continues to this day. All of the ancient civilizations - whether the Egyptians, Babylonians, Persians, Mayans, Aztecs, Chinese or Romans – helped to lay the foundations for all that followed in art, literature, theatre, math, science, architecture, engineering, warfare, and virtually every area that affects our lives. But the Greeks elevated their contributions in each of these fields and established for themselves a unique role in history because they focused on one crucial missing element:

# The Formulas



The ancient Greeks gave the world **the formulas**, devised **the theorems**, and equally important, provided **the written record** as the foundation of all that followed in every basic field of study. Below is just a sample:

### **HISTORY:**

- **Herodotus** – considered the “father of history,” wrote a nine-volume history of ancient Greece that is widely considered the foundation of Western historical writing, with critical evaluation of archaeological and other evidence and a focus on placing events within proper historical context.
- **Thucydides** – the author of one book, *History of the Peloponnesian War*, he took a scientific approach to history, with his focus on the gathering of evidence from documents and witnesses (including his own participation), his efforts toward objectivity, and his avoidance of attributing events to the work of the gods.

### **GEOGRAPHY & ASTRONOMY:**

These two fields are listed together because the great names in Greek history tended to study both the heavens and the earth.

- **Ptolemy** – recognized as the “father of geography,” he devised the vocabulary and basic framework for geography. He established the principles for astronomy.
- **Erastotenes** – geographer who developed the technique for computing the earth’s circumference. As an astronomer he compiled a star catalogue.
- **Hipparchus** – used math in determining places on earth’s surface and catalogued over 1,000 stars.
- **Aristarchus** – as astronomer, he determined that the sun and not the earth was the center of the universe.

### **MATH & SCIENCE: (Just a small sampling includes the following)**

- **Thales of Miletus**- the “father of Greek mathematics” instituted the requirement of “proofs” in mathematics.
- **Pythagoras** – among the most recognized of the ancient mathematicians, his theorems and experiments covered everything from mathematical formulas (the Pythagoras theorem) to mathematics as the basis for harmony/music. His prestigious school trained and influenced generations of mathematicians.
- **Archimedes** – developed methods for computing area and volume to any desired accuracy. His mathematical skills were equaled by his skills as a designer and inventor of practical implements such as the screw and a variety of weapons for war such as the catapult.
- **Euclid** – the most famous Greek mathematician and physicist, his books including *The Elements*, remain classics among mathematicians. His precise definitions, formulation of rules or postulates, and emphasis on applying rules of logic changed man’s view of mathematics forever and stirred discussion, debate, and exploration of complex and often abstract concepts.
- **The Atomists**- three major figures (*Democritus, Epicurus, and Lucretius*) who pushed the notion that tiny, indivisible atoms formed the basic component of everything.
- **Aristotle**- (what’s he doing in this category?) His contribution to **natural science** includes the classification, identification and description of 500 species.

## LANGUAGE ARTS, THEATRE, AND RHETORIC:

- **Homer** – The “grand-daddy of them all,” Homer, with the writing of the *Iliad* and *The Odyssey*, established the “can’t fail” formula for epic poems as well as novels, plays, film and even video games throughout history. The formula is simple: a main character, a goal that must be achieved, and a series of challenges that must be overcome along the way.
- **Sophocles, Euripides, Aristophanes, and Aeschylus** – truly the “fab four.” They not only established theatre as an art form, but set the benchmark against which play writers have always been measured. Until Shakespeare, no one matched their style, dramatic formula, beauty of language, or ability to tap universal themes that can easily be adapted to the issues and challenges of any generation. The ancient Greeks also established the vocabulary of the theatre that continues to this day.
- **Aesop**- This slave tapped into the ancient oral tradition as well as his own imagination and gift of storytelling to establish characters and stories with lessons to teach and values to impart. A forerunner of nursery rhymes, fairy tales, and modern children’s books, Aesop created a delightful world that meshed fantasy with the often difficult challenges we all face.
- **Isocrates and Lysias**- the first notable speechwriters in history, they combined the Athenian love for the written and spoken word, the pride taken in a well-turned phrase, the power and influence of words, and the participatory stage of democracy to establish this most influential leadership skill.
- **Mythology**- Saved, sheltered, and shared through written and oral traditions of ancient Greece; adapted and advanced by succeeding generations around the world, Greek mythology is perhaps the best known of all world mythical traditions. It has been said that a college-bound student needs three things – a good Dictionary, a good Thesaurus, and Edith Hamilton’s classic book, *Mythology*.

## ART & ARCHITECTURE:

- **Praxiteles**: His 8-head canon formula established the proportional guidelines for sculpture that is still used by sculptors today, including serving as the starting point (with mathematical adjustments) for Alan LeQuire’s 42’ Athena statue in the Nashville Parthenon.
- **Classical Architecture**: The Greek architecture of the 5<sup>th</sup> and 6<sup>th</sup> century BC established as the world’s first recognizable architectural style with its emphasis on rational construction and aesthetic balance/symmetry.

## PHILOSOPHY AND LOGIC:

- **Socrates, Plato, Aristotle**: Embraced as the fathers of philosophy and logic

## DEMOCRACY:

- **Embraced by America’s founding fathers, the ideas established in ancient Athens and expanded by the Romans set the foundations of modern democracy.**

As if this list were not impressive enough, let's add

# the computer

the what?

Yes, it seems that over 2000 years ago, the ancient Greeks designed and built the world's first **analog computer**

# the Antikythera Mechanism

<http://www.antikythera-mechanism.gr/project/general/theproject.html>

As you review the contributions of the ancient Greeks, you can see countless ways they impact our world today. That is why they are important, why we study them, and why since its earliest days Nashville has taken such pride in its designation at *The Athens of the South*.





Ancient Greece dates from the Bronze Age (around 3500 B.C.E. – *before the common era*)) and ended with the conquering of Greece by the Romans in 197 B.C.E. *The Golden Age of Athens*, during which the Parthenon was built, dates from 461-431 B.C.E. Confusing? Sometimes it helps to create a visual chart of time known as a *timeline*.

### Creating a timeline:

This activity is easy, fun, and an excellent way for students to picture the flow of historical events. It is also a wonderful study guide for students, helping them to recall dates and to grasp the development of ideas and events in any subject matter – history, science, mathematics, the arts, literature, etc.

### Directions

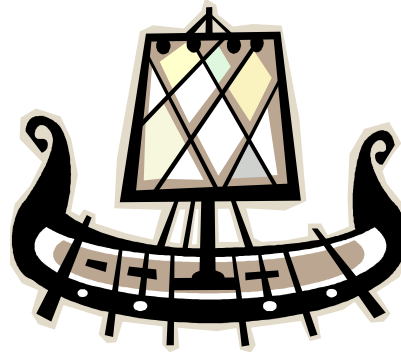
Begin with a long piece of paper (use butcher's paper or a long roll of white or brown wrapping paper) and, using markers draw a line with the midway point. To the left of the midway point write the year "1 B.C.E." and to the right of the midway point write the year "1 C.E." Students then measure and mark time periods in five hundred year increments forward and backward from the year 1. Next, allow students to fill in significant years on the timeline.

1000-800 B.C.E.  
776 B.C.E.

Rise of Greek City States  
First Olympics



508 B.C.E.		First efforts toward democracy, rule by the people.
499 B.C.E.		Greek Ionian cities revolt against Persian empire.
494 B.C.E.		Greek fleet crushed by Persians who move into Attica
<b>490 B.C.</b>	<b>E.</b>	<b>Battle of Marathon, Greeks defeat Persians.</b>
480 B.C.E.		Second Persian invasion. Athens in ruins.
479 B.C.E.		<b>Persians driven from Athens</b>



<b>461-431 B.C.E.</b>		<b>Golden Age of Athens under Pericles</b>
449 B.C.E.		Treaty with Persia.
447-438 B.C.E.		Construction of the Parthenon
<b>438 B.C.E.</b>		<b>Completion of the Parthenon and statue of Athena</b>
<b>431-404 B.C.E.</b>		<b>Peloponnesian Wars/ Sparta conquers Athens</b>
<b>336-323 B.C.E.</b>		<b>Alexander the Great</b> conquers vast territory and spreads Greek influence from Europe to Asia.
323 B.C.E.		Death of Alexander the Great
<b>197 B.C.E.</b>		<b>Romans conquer Greece.</b>

267 C.E.		<b>Fire destroys interior of the Parthenon</b>
529 C.E.		Conversion of Parthenon to Christian Church
<b>1456 C.E.</b>		<b>Athens falls to Turks.</b>
1458 C.E.		Conversion of Parthenon to Muslim Mosque
1687 C.E.		<b>Parthenon, used to store gunpowder, explodes.</b>
<b>1800-1805 C.E.</b>		<b>Lord Elgin removes sculptures/friezes from Parthenon</b>
1816 C.E.		Elgin Marbles placed in British Museum
1821-32 C.E.		Greek War for Independence
<b>1833 C.E.</b>		<b>Greek gains independence</b>

<b>1897 C.E.</b>		<b>Tennessee Centennial / Nashville's first Parthenon</b>
<b>1923-1931 C.E..</b>		<b>Construction of permanent Parthenon in Nashville</b>
<b>1990 C.E.</b>		<b>Unveiling of the Athena statue at Parthenon in Nashville.</b>

## INTRODUCTION

### It all started with the M&M's: (the Minoans and the Myceneans)

Considered the first great civilization in the Aegean region, the Minoans lived on the island of Crete (2200-1450 B.C.E.). Farming and trade throughout the region contributed to an advanced culture capable of building cities or the magnificent Palace at Knossos. Around 1450 B.C.E. the peaceful Minoans fell to Greek-speaking **Myceneans** from the mainland to the north. The invaders absorbed and borrowed heavily from Minoan culture as evidenced by the art and buildings, including the palace at Mycenae. But the war-like character of the **Myceneans** was reflected in vessel paintings depicting battle and hunting scenes and in the tendency to give a more fortress-like appearance to structures. While farming continued its importance, trade expanded dramatically and products such as Egyptian Papyrus (an early version of paper) and amber from the Baltic Sea made their way into Mycenaean cities.

(Source: Anton Powell, *Cultural Atlas for Young People: Ancient Greece* (NY/Oxford: Facts on File Books, 1989), pp.10-11.

### The significance of geography:

An understanding of geography is crucial to an understanding of the impact of ancient Greece upon the world. Go online and visit the Ancient World Mapping Center at University of North Carolina, Chapel Hill <http://www.unc.edu/awmc/awmcmap50> for maps of ancient Greece, the Aegean, and the ancient world. The pdf file: eaaRegions features a map by Tom Elliott that shows the entire ancient world from Europe to Central Asia. Viewing this map, students can clearly see the position of ancient Greece in the center of the trade routes, marking a line where east meets west. Discuss with students the significance of this location – economically, militarily, socially, and culturally.

### **Nashville Note:**

**Look at a map of the Eastern portion of the United States and note the position of Nashville, the “Athens of the South,” similarly located in the middle of “trade routes” where three major interstates (I-65 north/south, I-40 east/west, and I-24 northwest to southeast) converge. How has this location impacted Nashville – economically, militarily (think about this one), socially, and culturally throughout its history?**

## Lesson One: Greek City States

**Objective:** To provide students with an overview of the ancient Greek City State and to demonstrate connections to modern communities and the notion of city planning.

As a result of this lesson students should:

- Develop an understanding of the ancient Greek City State
- Understand the goals and processes of developing the ideal community.
- Make a connection to the idea of modern city planning with its challenges of providing services, achieving inclusion for all citizens, and meeting present-day needs while offering flexibility for future growth and changing circumstances.

### **An Ancient Melting Pot:**

The United States is often referred to as a *cultural melting pot*. Take a minute to discuss what that term means to your students. Is your own school or class a melting pot of cultures? How many cultures are represented in your school?

Ancient Greece was also a melting pot of cultures, due in part to its location. By sea it is located at a point where the Mediterranean Sea meets the Aegean Sea and, by land, along a line where East meets West. Take a moment to locate Greece on a map or globe. Notice especially the number of countries and cultures within easy reach of Greece. Notice, too, the ease with which trade or later Greek armies such as that of Alexander the Great could conquer or spread Greek influence to areas of Turkey, Italy, Sicily, Spain, Egypt, and present day Middle East.

As these various peoples inhabited the area later known as Greece, they came to share a common language, but each was considered a separate entity known as a **city-state** with its own gods and goddesses, its own army, its own currency, etc. A good comparison would be if in America each state was a separate entity with no uniting government combining them into one nation.



### What is the Greek City State?

Around 1100 B.C.E. Dorian tribes invaded from the north and the Dark Ages of Greece began, continuing until 800 B.C.E. However, during this three-hundred year period, the foundations of Greek culture and democracy were laid. As the Greeks fled the Dorians, they gathered in small communities and created the polis, or city state. Each was carefully planned. At the center was a fort on a flat hill (an *acropolis*). From this center point streets were laid out in a grid with cross streets at right angles, creating blocks that contained houses and other buildings (just as our modern cities are laid out). The polis was surrounded by a protective wall. As mentioned earlier, these communities were not joined together as a nation but each of these city states was a separate entity with its own money, trade, festivals, gods and goddesses, calendar, etc. Everyone had his own idea of the ideal polis. The philosopher Plato, who believed that the study of mathematics held the key to all understanding, devised a formula for the number of citizens needed to comprise the ideal polis. Work out his formula to determine the ideal number:

$$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 =$$

In contrast to Plato's "ideal," 5<sup>th</sup> century Athens had a population of about 300,000.

### Activity 1:

Look back at the description of the polis listed above. Ask your class to plan the ideal polis based on this description. Do they believe, like Plato, that there is an ideal size? In addition to the central fort, what buildings and services should be included? What special areas or facilities do they consider important for inclusion in the polis? (For example: parks, theatres, areas for public assembly, gymnasiums, athletic fields, etc.). Students should negotiate and come up with a plan; then sketch or map out their polis.

Other classes in your school may also want to create an ideal polis. After each class completes the exercise, compare your sketches and assign one or two students from each class to describe their class polis and explain their decisions about what to include.

### Activity 2:

Investigate whether your home town has a city planner and a plan for future development and growth for the city. Explore the vision your city leaders have for your city. What is included? Do you see critical areas that have been ignored? How were decisions for the city plan made? Who was involved? How does the plan envisioned by city leaders match student ideas of an ideal com

**Nashville Note:** If you were to time-travel the city of Nashville back to ancient Greece, how would Nashville remind Athenians of their own city? If students stand in Bicentennial Mall and look towards the Capitol Building, they may notice something: The **Ionic** style of the capitol, as designed by William Strickland during the architectural period of the early 1800s known as Greek Revival, reminds us of a Greek temple. The cupola or small dome atop the Capitol building is based on the ancient Monument of **Lysicrates**. Like the Parthenon, the Capitol is situated on an **acros**, or the highest point in the city, resembling an ancient Acropolis. Surrounding the Capitol and extending down the hill are buildings of vital importance to government, culture, and religion. At the base of the hill lie the public space and the Farmer's Market (similar to the Agora in ancient Athens). In Bicentennial Mall, Nashville constructed an outdoor theatre reminiscent of the Theatre of Dionysus located at the base of the Acropolis.

## **Lesson Two: The Roots of Democracy**

### **Objective:**

To provide students with an understanding of where and how democratic thought developed.

### **As a result of this lesson students should:**

- Familiarize themselves with the various types of government
- Explore the rights and responsibilities of ancient Greeks in the earliest form of democracy.
- Analyze the progression of democratic thought.
- Discover the extent of Greek influence on the establishment of our own government.

**(Note: See complete sources list at the end of this lesson)**

### **The Great Experiment:**

The people who made up the polis met and talked freely about the kind of government they wanted. From this discussion within the polis we get our word **“politics.”** As the people discussed and experimented with government, they borrowed ideas from other places. Lets look at some of the forms of government that emerged from this experimentation:

<b>Monarchy</b>	meaning <i>one chief</i> or rule by one king.
<b>Oligarchy</b>	meaning rule by a small, select group.
<b>Aristocracy</b>	( <i>arist</i> means best) or rule by the richest, most powerful.

**Tyranny**

rule by *individuals* called *tyrants* who seize power.

**Democracy**

rule by the *people*.

**Totalitarian** absolute rule by one

person or party with no opposing views or parties permitted) was never tried.

The ancient Greeks laid the foundations for democracy. At the core was the notion of *isegoria* or “the equal right to speak” that belonged to every *citizen* (male, non-slave, non-foreigner). Each citizen had the right to address the *Boule* (council), *Ecclesia* (assembly) or *jury courts*. In ancient Athens, “freedom of speech was viewed as being of social and political, rather than individual significance.” (Wiltshire,, p. 112-113). In other words, the freedom of speech was a tool to improve the lot of the entire polis, rather than just the individual and each individual was *expected* to participate. *Pericles*, the leader of Athens during its golden age, explained:

*“Here, each individual is interested not only in his own affairs, but in the affairs of the state as well. We do not say that a man who takes no interest in politics is a man who minds his own business, but we say his is useless.” Likewise, “the person who has good ideas but lacks the ability to express them in public would be of no benefit to the city.”*

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**Note:** There were limitations to free speech. As mentioned, non-citizens including women, slaves, and foreigners were not included. However, Demosthenes boasted that “in Athens, even aliens and slaves could speak with more freedom than citizens could elsewhere.” In the assembly, “anyone who was condemned three times for unconstitutional motions lost his right to speak.” Citizens were held to a high level of accountability. Those who fell out of public favor might suffer public *ostracism* and *banishment*. Under Athenian law, the Ecclesia met once a year to take a vote on anyone whose name had been submitted for banishment. “Votes were scratched into an *ostrakon*, or broken piece of pottery. If a vote were taken and a total of six thousand votes were cast, the person receiving the highest number of votes was banished” – expelled from the city for a period of ten years. “It was not necessary to have committed a crime against the state, only to be considered potentially dangerous.” There were nine cases of ostracism. Two of the more prominent names were those of Pericles’ father and uncle.

**Class discussion:** What do students think of the notion of banishment? How could ideas, cultural changes, advances in education, fear levels within the population, and other factors impact a person’s probability of banishment? Do they see the potential for abuse of such a system? Ask them to give examples.

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The Athenians believed that before making any decision on policy, ideas should be submitted to a “lively discussion” by informed and thinking citizens. All citizens were encouraged to develop this ability to consider differing viewpoints, and then formulate and be able to defend their own view. (Recall the presence of philosophers and other means of intellectual stimulation at gymnasiums). One method of exploring ideas was a social gathering called a *symposium*. Small groups of ancient Greeks would gather, reclining on couches, eating grapes and figs, perhaps listening to music, and discussing

some topic. Here, citizens honed their abilities to listen to others, to express themselves and to formulate sound arguments. The host posed a question – perhaps a general question about life such as “What makes people happy?” or perhaps a political question such as “Do opponents of democracy have the right to speak out against the system that assures them freedom of speech?” The host began the discussion by sharing his views and then threw open the question to others. Each participant (and **everyone** present was expected to participate) expressed his opinion and then those present were free to challenge, argue and disagree – as long as they did so politely and *listened* to what others said.

**Activity:**

Hold a symposium for your class based on the last sentence in the paragraph above. The class can sit outside under the trees on blankets, munch snacks, perhaps listen to music, and discuss the question, “Have modern Americans lost the talent for civil intellectual discussion?” The teacher might introduce the topic by referring to modern television talk shows, political debates, etc. Do students believe each side in most situations has already made its decision on the issue *before* beginning the discussion? Do students think these are *true* discussions with each side really listening to the arguments of the other side? Do students think these “discussions” have a tendency to deteriorate into shouting matches? If they answer yes, how do they think this became acceptable behavior? Do students have ideas about how young people can set an example for adults regarding how to conduct intellectual discussions?

**The Development of the Democratic Idea:**

Many people mistakenly believe that democracy is the creation of America’s founding fathers. Others acknowledge the contributions of the ancient Greeks but seem to think the democratic idea lay dormant for over two thousand years until picked up again by Americans of the 18<sup>th</sup> century.

But ideas in democracy planted by the ancient Greeks and revised by the ancient Romans evolved over time with contributions in thought and experimentation made by others over time. When our nation’s fore-fathers gathered in Philadelphia to create a nation, they carried with them the best ideas from the best minds throughout history as their starting point.

The first effort in democracy was undertaken sometime between 594-501 B.C.E by an Athenian merchant named Solon who had been given the responsibility of creating a plan for the city to stop an economic crisis. His reforms included the first steps toward democracy such as dividing classes by wealth rather than birth, and revising the code of laws.

**Activity:**

Divide the students into teams. Ask each team to explore the contributions of one of the following individuals to the development of democracy. Listed here are those whose views, writings, and efforts articulated an important aspect of democracy or expanded the discussion on the benefits or criticisms of democratic government.

As students research their selected individual, remind them to look not only at the writings/views of that person, but also the opinions of peers and the reactions of the public at that point in time toward those views. One suggestion for team in-class presentation is use of the formula of Greek theatre using a narrator (to provide overview of the individual's life, time and circumstances during which he wrote, and his efforts for the expansion of democracy), **the protagonist** (the individual reading a short but crucial part from his writings), and a **chorus** (2-3 students representing the public, the opposing views, etc).

- **Pericles (490-429 B.C.E)** *Funeral Oration*
- **Plato (427-347 B.C.E.)** *The Republic*
- **Aristotle (384-322 B.C.E.)** *Politics*
- **Cicero (106-43 B.C.E.)** *Democracy as a Mixed Government*
- **Machiavelli (1469-1527)** *The Prince*
- **Locke (1632-1704)** *Second Treatise of Civil Government*
- **Montesquieu (1689-1755)** *The Spirit of the Laws*
- **Rousseau (1712-1778)** *The Social Contract*
- **Jefferson (1743-1826)** *Declaration of Independence*
- **Hamilton (1755-1804)** *The Federalist Papers*
- **Madison (1751-1836)** *The Federalist Papers*

#### **Putting it all together:**

In order to demonstrate how these ideas built upon each other to produce modern democracy draw an inverted Christmas tree with the pointed end facing down and the branches above expanding wider at each level until you reach the widest branches at the top.

Now, starting on the bottom level put the name of Solon and one or two basic principles from his reforms. Students will now build, layer upon layer, with each level representing the major ideas of that writer. When the project is complete, students should have a visual tool showing clearly the development of the democratic idea.

#### **Activity 2:**

Following this exploration of democratic ideas, look at the important American documents including *The Declaration of Independence*, *The Constitution*, and *The Bill of Rights*. What words, phrases, and ideas appearing in these documents can be traced to those earlier writers and philosophers?

#### **Sources:**

1. **John H. Artman, Ancient Greece: Independent Learning Unit (Carthage, IL., Good Apple Publishing, 1991) pp. 12-15.**

2. Avery Hart and Paul Mantell, Ancient Greece: 40 Hands-On Activities (Charlotte VT., Williamson Publishers, 1999), pp. 45-46, and 72-79.
3. Anton Powell, Cultural Atlas for Young People: Ancient Greece (New York/Oxford: Facts on File, 1989), pp. 10-11).
4. Charles M. Sherover, The Development of the Democratic Idea (New York: A Mentor Book, New American Library, 1974).
5. Susan Ford Wiltshire, Greece, Rome, and the Bill of Rights (Norman, OK., University of Oklahoma Press, 1992): pp. 112-113.

## Meeting Social Studies Standards Opportunities at the Parthenon

Parthenon programming strives to meet national standards in social studies through a combination of on-site tours, pre-visit materials, outreach programs, and follow-up activities. Teachers and students (particularly those in the 6<sup>th</sup> grade) taking advantage of the wonderful resources at the Parthenon may find assistance in meeting the following national standards:

### **Civics and Government:**

**Standard 1:** Students will understand and be able to explain the purposes and structure of governments with the emphasis on constitutional governments.

Nashville is fortunate to have a full-scale replica of the ancient Parthenon. The presence of the structure in our city provides a visual reminder of the glory of the ancient Greeks and serves as a splendid backdrop for the study of ancient history as well as the influence of the Greeks on American life and culture, citizenship and the development of government. Students look at the basic structure of the city-state and by designing their own ideal polis, discover some of the ingredients necessary for a successful community.

**Standard 2:** Students will be able to analyze, interpret, and evaluate the rights, responsibilities, and privileges of citizens living in a democratic society.

Students explore the rights and responsibilities of ancient citizens, and recognize the impact of those rights and responsibilities in the creation of our own Bill of Rights.

**Standard 5:** Students will gain knowledge, skills, and attitudes necessary to becoming contributing citizens in our participatory democracy.

Through specific activities, such as the symposia, students gain skills in listening to others, formulating sound arguments, expressing themselves, and participating in civil discourse.

### **History:**

**Standard 1: Chronological Thinking**

Students will explore classical traditions and grasp the development of events in ancient Greece through activities such as the designing of a time-line.